

1 with 80 megahertz left there will be any raising
2 rivals' cost to have power over price.

3 The same for foreclosure. Again, if the
4 cellular people bought 20, there is 80 megahertz
5 left. How can they be foreclosed? I mean, that is
6 a lot of spectrum.

7 When we first started this exercise a lot
8 of people thought 80 might be as much as the -- as
9 the Commission would allow.

10 So in terms of any anti-competitive
11 outcome, I haven't heard a theory yet that, you
12 know, has any basis in either economics or the
13 historical facts of cellular.

14 My last point I will just return to the
15 geographic thing. I think the geographic thing
16 really depends to some extent on what the
17 Commission decides in terms of -- in terms of how
18 they were going to allocate the spectrum?

19 Again if you go to six 20s which is my
20 favorite plan I think a mixture of BTAs and MTAs is
21 really quite attractive. I'm not saying it should
22 be three each. Maybe it should be four and two or

1 two and four. But you do allow a mixture of
2 aggregation.

3 I think if you stick to your current plan
4 which has two 30s which would be the MTA, that in
5 terms of people trying to link together to provide
6 super regional or national services which was being
7 discussed, I think it could be considerably
8 harder -- more difficult under that type of
9 situation.

10 So I think the geographical scope cannot
11 be necessarily separated from the amount of
12 spectrum that is passed out.

13 But again I think if we get away from the
14 10s which again I don't favor, then I think the
15 BTAs start to look more attractive, you know, by
16 the time you get to up to twenty or more.

17 Then the last point, I can't -- I'm sorry
18 I have to say this. You said what could the
19 Commission do to make the -- to ease the cellular
20 problem and the MSAs and the size -- you know, more
21 competitive? It would be to get AT&T and MCI to
22 stop trying to forbid the box cellular companies

1 from providing long distance.

2 They could provide super regional -- they
3 could provide super regional service if it weren't
4 for the assume MFJ, but of course that is a
5 discussion for another time.

6 MR. KELLEY: Professor Hausman and I have
7 had that discussion. And I'll be glad to refer you
8 to all the piles of paper that have been filed in
9 that issue.

10 But going back to the ancient history if
11 you want to get into real ancient, I was at the FCC
12 in the late 70s and early 80s when we were trying
13 to figure out how to allocate cellular spectrum.

14 And I think Chuck Jackson holds me
15 personally responsible for the \$86 billion consumer
16 welfare loss for the delay in licensing cellular
17 that he and Ross Major (phonetic) -- but we were
18 ahead of our time back then.

19 We were thinking -- some of us at the
20 Commission anyway were thinking about using
21 cellular as an entry point in local competition.
22 And I think that the boxes were very successful in

1 preventing that from happening because they got
2 the -- they were able to get the free spectrum for
3 the B side and they went out and bought all kinds
4 of A side and created a nice little duopoly
5 situation and created a market out of cellular
6 which at this point doesn't allow any competition
7 or at least doesn't result in any competition for
8 wireless loops.

9 MR. VAUGHAN: STANLEY? Professor Hausman,
10 could you expand a bit on the comment that you
11 believe it is harder to aggregate say 30s at the
12 MTA levels contrasted with say heterogeneous 20s
13 MTA, BTAs?

14 MR. HAUSMAN: My point was -- I'm sorry
15 if I didn't make myself clear, Mr. Stanley -- was
16 that I think the current scheme with the 10s being
17 BTAs, that may create a problem with aggregation.

18 So that is why I believe that if you go
19 to 20s you could have a mixture of BTAs and MTAs
20 without undue worry about aggregation.

21 But from much of what I have heard and
22 read I think there is quite a bit of fear that the

1 10s in the upper frequencies may be difficult to
2 aggregate.

3 MR. GIPS: One of the questions that we
4 had given you is how can we help designated
5 entities participate in this market and what
6 mechanism should we be considering.

7 MR. HAUSMAN: There are two feelings
8 about that. The first is I think the designated
9 entities should be permitted special consideration
10 with respect to paying for their spectrum because
11 here I think -- although I'm a real believer in
12 market -- that there may be capital constraints.

13 So that I think some type of frame work
14 in which they wouldn't have to pay all the money up
15 front but some other frame work could be but
16 forward.

17 I think there are many that might be
18 quite useful. However, beyond this point I don't
19 think that the FCC needs to set part of the
20 spectrum aside especially for designated entities.

21 So I'm in favor of special financial
22 arrangement but not in favor of the saying here is

1 X megahertz and that should only go for designated
2 entities.

3 I think the second thing I would also
4 suggest here is that I think the attribution rules
5 need to be fixed or at least cleared up so that
6 designated entities will find it easier to enter
7 into joint ventures or other type of corporate
8 arrangements with non-designated entities or either
9 in the industry now who will enter.

10 So I guess those are my two favorite
11 plans. One would be a special financial
12 arrangement and secondly is clearing up the
13 attribution rules to make it easier for them to
14 combine with other corporations or firms.

15 MR. BESEN: I guess the one thing I would
16 add is that to the extent that designated entities
17 in fact require licenses in the initial auction
18 process, I would be in favor of allowing them
19 considerable freedom in subsequent sales.

20 To the extent that it turns out that the
21 initial licensees are folks who decide that in fact
22 they cannot use is as profitably as some other

1 entity I would not impose significant trafficking
2 rules on their subsequent transactions.

3 UNIDENTIFIED SPEAKER: Doesn't that give
4 them an incentive to sell.

5 MR. BESEN: It certainly does.

6 UNIDENTIFIED SPEAKER: I'm not sure how
7 that encourages their participation other than
8 making a lot of money up front.

9 MR. BESEN: Well, they may make a lot of
10 money. The question is if the objective is to
11 provide the best possible services to consumers
12 that in fact it will be a mistake if someone were
13 in fact forced to hold onto a license for a
14 considerable period of time when in fact someone
15 else could better offer service to the public.

16 MR. PEPPER: You're not suggesting
17 that -- well, I guess we should probably stay away
18 from auctions issues since we have not yet released
19 the item.

20 So we are still to some extent under --
21 we still are under sunshine act so we should
22 probably pass on discussing specific auction

1 mechanisms.

2 Dan?

3 MR. KELLEY: I guess I'll take this
4 opportunity to agree with my panel members. It is
5 a rare occasion.

6 MR. PEPPER: So the agreement is
7 flexibility on payment and no set aside is what.

8 MR. HAUSMAN: I did have one other point,
9 the ability to combine with other entities by
10 clearing up the aggregation rules. I take it that
11 is just a technical thing for the lawyers to fix
12 up. Economists don't have a special competitive
13 advantage on telling you how to do that.

14 MR. PEPPER: What about questions -- have
15 you looked at the capital requirements for build
16 out? Have you looked at standard questions,
17 questions of -- does this to some extent go to
18 geographic scope roaming for cellular -- for PCS
19 services as compared to what has occurred in
20 cellular?

21 And what about provisions for example
22 to -- or require resale in order to smooth out any

1 potential head start problems? Have you thought
2 about these questions.

3 MR. KELLEY: On the standards issue one
4 of the reasons in my early papers in the proceeding
5 that I thought a national license would be good,
6 and one reason why I believe today it would be good
7 to allow for a rapid aggregation up to national
8 licenses is that is going to make it easier to get
9 standards in place.

10 I worry on the standards issue that if
11 critical issues get referred to industry forums,
12 those forums are going to be dominated by carriers
13 who are in the market and have vested interest and
14 therefore get bogged down.

15 So I think the Commission is going to
16 have to be active in this area to ensure that the
17 standards process isn't used as a way to erect
18 barriers to entry or to raise rivals' costs as we
19 were talking about earlier.

20 I have not looked at the capital
21 aggregation issue myself.

22 The other dash in question for this

1 timing of entry -- and again I will go back to my
2 refrain, the sooner the better.

3 MR. PEPPER: Stan?

4 MR. BESEN: I don't disagree with the
5 sooner the better either. I think that is right
6 answer. With respect to the standard setting, it's
7 been a long time since I have actually looked at
8 this question in this industry.

9 It seems the times I looked at it in the
10 past there seemed to be quite reasonable
11 relationship between the industry and equipment
12 manufacturers that seem to be dealing reasonably
13 effectively with the standards question.

14 I think the Commission might -- may have
15 a role, but I would limit it to an oversight role
16 of the private bell injury standard setting
17 process. And I would be seriously concerned if the
18 Commission were to attempt itself to establish
19 standards at this point particularly given the
20 highly fluid nature of market demand and technology
21 here.

22 MR. HAUSMAN: On capital again I think

1 that that is not going to turn out to be an
2 overwhelming problem. The capital markets are
3 going to work well enough -- you know, again with
4 the caveat the designated entities might deserve
5 special treatment.

6 But, you know, again the ESMR people had
7 no problem raising capital at least that I'm aware
8 of. The interesting thing about ESMR too is that
9 ESMR in some sense is going to be using a new
10 technology, the Merz (phonetic) technology from
11 Motorolla. And there is some real problems with
12 ESMR because it has to do frequency hopping by
13 considerably more than other types of technology.
14 You also have the short spacing problem.

15 Nevertheless, they have been able to
16 raise the money. To some extent there is already
17 proven technology out there for PCS which is GSM if
18 people want to deploy it.

19 It's been successfully deployed in
20 England, parts of Europe and Australia now. So
21 that we have a proven technology.

22 But what I heard this morning from what

1 the market seemed to think that certainly demand is
2 out there that could be met at a reasonable cost.

3 So all that leads me to believe that
4 there is not going to be a special problem here and
5 that the market will be able to sort this out.

6 Again, I'll say the sooner the better. I
7 mean, how can anybody disagree with that? That is
8 motherhood and apple pie. We want a reason
9 decision, but there is no reason for special
10 delay.

11 And, you know Dan, in fact was at fault
12 for the \$85 billion which I would only put him down
13 to \$84 billion and spread the other billion over to
14 lawyers who practiced before the FCC.

15 I think on the standard setting I find
16 particularly interest but also difficult. It is
17 easy to say we would like to have nationwide
18 roaming. And perhaps if we had a nationwide
19 cellular system without the roaming fees that would
20 have been nice. Maybe that was one of the costs of
21 the break up of AT&T although we've certainly got a
22 lot of benefits, you know, on the other side.

1 But I'm really quite worried that if the
2 Commission becomes involved in the standard setting
3 process we may be headed for the \$84 billion
4 again. So I think that what should be done perhaps
5 is to have a frame work for review, but no more
6 than that. And to actually depend on private
7 actions. So I pretty much agree with Stan here I
8 think.

9 MR. PEPPER: Before we wrap up, do any of
10 the other panelists have any questions? Is there
11 anything else.

12 We promised you a closing statement. Is
13 there anything --

14 MR. KATZ: Let me ask whether anybody
15 would like to add in his two cents worth about the
16 potential role for unlicensed devices or for
17 carrier provided services on unlicensed spectrum?

18 Do you want to add anything? You want to
19 get to your summary.

20 MR. KELLEY: I guess just very briefly
21 from our work with a lot of companies that come to
22 Hatfield Associates for technical help -- and they

1 certainly don't get it from me. But a lot of
2 companies come to get it from my colleagues.

3 So there is a lot of good ideas out
4 there. People chomping at the bid to get into the
5 market. And that is all for the good.

6 MR. PEPPER: Why don't we wrap up?

7 MR. HAUSMAN: Okay. I think that this is
8 a really historic departure for the for FCC using
9 auction. And I think part of where Dan and I
10 disagree is just our difference in where we come
11 from.

12 And I think the real question here,
13 should there be a conscious policy of exclusion or
14 should there be a conscious policy of inclusion.

15 Once upon a time when the FCC passed that
16 spectrum people would come in with really neat
17 ideas and try to convince you that this is a good
18 idea. And then you would give them spectrum for
19 free.

20 And then you sort of have to decide is
21 Company A a more worthy recipient than Company B.
22 I think we are facing something very different now,

1 and this is should the Commission have a purposeful
2 exclusionary policy. In other words, should they
3 say the cellular people can't buy any more
4 spectrum. You know, they have enough. Somebody
5 has decided they have enough.

6 And I think that is the wrong foot to
7 start off on in a market-based policy which this
8 FCC is going to unless there are real fears that
9 the cellular companies can actually exercise market
10 power and hold prices above competitive level.

11 I think that is really the only grounds
12 under which anyone should say here is who we are
13 going to let in and here is who we are not going to
14 let in.

15 Just to end up, I'm going to quote my
16 colleague, Paul Sanderson's, textbook. We know
17 that the market will lead to the economically
18 efficient outcome boring the exercise of market
19 power.

20 And to quote Paul Sanderson, if anyone
21 thinks differently it means that an ognition
22 (phonetic) planner could not come along with a

1 computer and find a solution superior to the market
2 outcome.

3 This concept of efficiency that you can
4 not make one person better without making another
5 person worse off is one of the central ideas of
6 economics.

7 So my view that the market should be
8 allowed to decide, and if anyone says differently
9 really what they are saying is that it is an
10 administrative decision which claims implicitly
11 that it can be do better than the market and the
12 allocation of resources. And you will find very
13 few economists who believe that that is possible.

14 And I believe that the whole thrust of
15 the administration to the greatest extent possible
16 is to let markets decide. So I certainly encourage
17 you to do so.

18 MR. PEPPER: Thank you. Stan?

19 MR. BESEN: In 1952 the FCC released its
20 spectrum allocation plan for television, even
21 before Bob Pepper was with the Commission.

22 MR. PEPPER: I was going to say this was

1 even before -- you were still here then?

2 MR. BESEN: Yes, I was here. There was a
3 matter on which the Commission worked for a very
4 long time. It actually started at least back as
5 far as 1948. So it had been at this for about four
6 years.

7 After all this was the sixth report and
8 order. They had been trying for some time to get
9 it right. The plan was actually rather detailed
10 and elaborate. It decided how much stations there
11 should be in each locality. How many should be UHF
12 or VHF. How many should be commercial or
13 noncommercial. How many should -- what the size of
14 the service area served by each station should be.

15 It was a very elaborate and detailed
16 plan. I'm sure lots of very high quality man-hours
17 were devoted to trying to get it just right. And
18 of course the Commission.

19 In fact, one of the earliest problems I
20 ever worked on when I began looking at the
21 communication industry was the fact that there were
22 all these idle UHF allocations.

apropos of today's
to was starved for
nt on for probably a
amounts of spectrum
poor then-starved land

ing way from that. I
re is remarkable. I
ceeding talking about
s have been made. They

-- Jerry emphasized the
on rather than
determine precisely
re assignments.

the point I made earlier
important that the Commission
n use after the initial

lity in reassignments is in
t of the process it seems to
tions.

DEFECTIVE COPY IS
EXACT DUPLICATE OF
FCC PROVIDED ORIGINAL

1 No one should not believe -- everyone
2 should know, I guess, at this point that we can't
3 be sure precisely which services will be delivered
4 under the rubric of PCS, who will be the best firms
5 to provide them, and what is in some sense an
6 optimal market structure.

7 We ought to be leaving as many of these
8 decisions as we can to private market processes
9 subject only to the constraint -- which I think
10 permits the Commission very wide latitude --
11 subject only to constraints that the market not
12 become excessively concentrated.

13 If the Commission pursues that approach,
14 takes that view of the matter, I think this process
15 will have an extremely happy ending.

16 MR. PEPPER: Thank you. Dan?

17 MR. KELLEY: There is more agreement up
18 here than is apparent.

19 The sort of motto for the day is the
20 sooner the better. I'll repeat it one more time.

21 I think the Commission should go about
22 promoting a competitive structure in order to

1 present and the fact.

2 But I think it's very important that we look
3 forward to saying what about imaging, what about all the
4 other features that data capabilities, the applications
5 that people will want a decade from now is a huge amount
6 of time with the rapid movement of technology.

7 And I believe that it would be risky to say that
8 there would be sufficient spectrum to do all the things
9 that one might want to do, even below the 50, the top 50.

10 That's a long ways down the list, and I
11 recognize that, but I still believe that there -- those
12 frequencies would be put to good use for market needs at
13 some point in time, maybe not as early in the larger
14 market.

15 MR. PEPPER: We have about 10 minutes or eight
16 minutes left, and I want to give people an opportunity for
17 very short thoughts that you may have as a result of the
18 discussion, so why don't we start around the room, and
19 let's get another question. Tom, did you have a follow
20 up.

21 MR. WAYLAND: I just had a follow up on the 20
22 mega-hertz question. I heard the responses, in effect,

1 really addressed the geographic area as not the magnitude
2 spectrum.

3 Let's suppose that were something like the MTA
4 level mark. Would two 30s and a 20 be a stable
5 arrangement, would that go largely unused in, say, outside
6 the first, say, your top 50 markets. Could you comment on
7 that particular arrangement?

8 MR. LOWENSTEIN: I would suppose some of the
9 unit cost arguments that have been used for beyond the top
10 50 markets. I think it's important to recognize that the
11 top 50 markets -- beyond the top 50 markets, it would
12 devote a much smaller market than that.

13 For example, it would be difficult to justify in
14 the unit spaces a micro cellular type of network where you
15 have micro cells every 200 meters, like would be supported
16 very easily, for example, by one or more providers in a
17 New York or Los Angeles or whatever. So I think those
18 come down to some of the geography and demographic issues.

19 I recognize that beyond the top 50, there is not
20 the same population density that people would tend to use
21 a vehicle base service a little bit more readily than in a

1 densely populated urban area, for example, and that those
2 markets might be very well served by a -- would be better
3 served by a wide area type service such as a cellular
4 service such as a ESMR service, and perhaps some niche
5 type PCS services that are, for example, data oriented, or
6 enhanced paging oriented, for example.

7 MR. PEPPER: I'll start on this end here with
8 Mr. Trampush.

9 MR. TRAMPUSH: Well, I think I had an
10 opportunity to make most of the points I wanted to make,
11 but I do want to reiterate that equal opportunity for all
12 of the participants in the market represents the right
13 thing to do to serve the consumer, and to get services
14 into the consumers hands in a timely and a cost efficient
15 fashion.

16 There are many providers of wireless services
17 today who are very, very well positioned to do that, and
18 anything which would inhibit their ability to do it would
19 not serve the interests of the public.

20 We -- we believe there is an opportunity here to
21 do some of the things that people have talked about over
22 the last few years about the evolution fm wireless to

1 promote innovation, investment, and efficient
2 pricing.

3 To me promoting a competitive structure
4 is not the same thing as using a merger guidelines
5 analysis to prevent undue concentration.

6 Your job is to promote competition not to
7 prevent bad things from happening. And in the
8 course of doing that you should provide opportunity
9 for new entrants because that is going to bring the
10 most competition to the market. Thank you.

11 MR. PEPPER: Thank you very much.

12 MR. HALLER: Well, okay. Very
13 interesting session. Thank you panelists. We will
14 take a break now and reconvene promptly at 3:00
15 with our last panel of the day. Thank you.

16 (Thereupon, a recess was taken, and then
17 the deposition continued as follows:)

18 MR. HALLER: If we could please get
19 started again. All right. We are back for our
20 last session for the day. This session we will
21 learn about the finance community.

22 I was handed an article which may be an

1 appropriate way to start off when you start talking
2 about the financial community.

3 And I quote, in 1865 a writer of the
4 Boston Post informed his readers well-informed
5 people know it is impossible to transmit voice over
6 wires. And if it were possible to do so, the thing
7 would be of no practical value.

8 I think that we are sure learning today
9 that there is a tremendous value to communications
10 and the communications that can be provided by
11 PCS.

12 To that extent, I hope this panel in fact
13 enlightens us even more on that subject. I would
14 like also to mention that because the auction --
15 the general auction's second report and order is
16 still in the sunshine period because it has not
17 been released -- that is Plans and Policy docket
18 93-253 -- we will be placing a copy of the
19 videotape of this session in that docket as well.

20 So to the extent that issues related to
21 auctions have been discussed in today's meeting
22 they will become formally part of that auction's

1 docket.

2 With that, I'll turn to Don Gips for our
3 next panel.

4 MR. GIPS: Thank you, Ralph.

5 I would like to introduce our panelists.
6 We have Al Houston from AT&T network systems,
7 John Oxendine from Broadcap, Herb Wilkins from
8 Syncom, Paul Rissman from Alliance Capital
9 Management, Nancy Peretsman from Salomon Brothers,
10 and Mark Roberts from Alex, Brown & Sons.

11 We are going to go back to the format we
12 used in the first panel and have each panelist
13 start with five minutes of opening remarks, and
14 then turn to questions.

15 So I'll turn immediately to Al.

16 MR. HOUSTON: Didn't bargain to be first,
17 but let me get started. My name is Al Houston.
18 I'm the project finance director, North American
19 region, that is U.S. and Canada for AT&T Network
20 Systems, the manufacturing arm of AT&T.

21 In my five-minute written statement I
22 refer to AT&T's public statement position in the